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ABSTRACT

This progress report discusses the rationale and activities of the Project on Television in Early Childhood Education at the University of Southern California. Since January 1975, the Annenberg School and the School for Early Childhood Education have cooperated in a program of faculty and student interaction and informal research projects aimed at investigating the role of television in children's cognitive and linguistic development (infancy through 60 months). Described are plans to develop and evaluate prototype materials and procedures for parent and child interaction. Recent activities of project staff members are reviewed, and the following points are elaborated on: (1) preschool children watch substantial amounts of commercial television; (2) strategies should be developed by which this time spent with television can contribute to cognitive, social, and linguistic development; (3) a developmental perspective is necessary to interpret the impact of television (the theoretical position of Jean Piaget has been adopted); (4) Parent-Child-Television Interaction Kits (PCTI) are a hypothesized method for stimulating certain aspects of learning from commercial television experiences; and (5) plans for the preparation and use of kits should be derived from significant findings of parent-child interaction research. (Author/MS)

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PROJECT IN TELEVISION AND EARLY CHILDHOOD EDUCATION

at the University of Southern California

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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A Joint Project of The Annenberg School of Communications and The School for Early Childhood Education

University of Southern California, Los Angeles, California, 90007

PROGRESS REPORT: RATIONALE AND ACTIVITIES

OF

PROJECT ON TELEVISION IN EARLY EDUCATION

JULY - DECEMBER, 1975

BY

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January, 1976

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I. Project Aim

Since January of 1975, the Annenberg School and the School for Early Childhood Education have cooperated in a program of faculty and student interaction and informal research projects, all aimed at seeking an understanding of the role of television in the early cognitive and linguistic development (infancy through 60 months) of our children.

Acknowledging that many children are now destined to spend more hours watching television (primarily of the commercial variety) than they will eventually spend in school, we have felt that urgent priority should be given not only to studying the consequences of these experiences but, in particular, how educational benefits might be achieved. Unlike most studies concerned with children and television, this study investigates the prosocial aspects of the child's early television experiences.

Our work to date has led us to believe that if a child's television experiences can become a frequent topic in parent and child conversations, several major benefits may accrue--namely: (1) early development of concepts will be more reality than television oriented; and (2) the passive experiencing of the linguistic content of television will have more potential of being transformed into active conceptual aspects of cognitive and language development.

In this document, we describe plans for expansion of our joint efforts; namely, to develop and to evaluate prototype materials and procedures for parent and child interaction which will result in the aforementioned benefits.

We are seeking to demonstrate what parents and children can do with television rather than waiting to see what television is doing to our young children.

II. Project Activities

July - December, 1975 - Completed Activities

This section of the report reviews the recent activities accomplished by the staff of the Project on Television in Early Education.

Rationale statement. As a result of discussions held during the spring and summer, a basic rationale statement was developed. It appears as Section III of this document. In essence, it elaborates upon the following points:

- Preschool children watch substantial amounts of commercial television.
- Strategies should be developed by which this time spent with television can contribute to cognitive, social, and linguistic development.
- A developmental perspective is necessary to interpret the impact of television, and for this we have adopted the theoretical position of Jean Piaget.
- Parent-child-television interaction kits (PCTI) are a hypothesized method for stimulating certain aspects of learning from commercial television experiences.
- Plans for the preparation and use of kits should be derived from significant findings of PCI research.

Learning objectives. Another item of major consideration during this period was deciding what learning gains might be achieved. The selection of the objectives was based upon the following criteria:

1. The objectives should be derived from cognitive, social, and linguistic aspects of development

for three to five year olds as defined in Piagetian theory.

2. The objectives should be operationally defined in terms of the effects of parent and child interaction materials.

3. Experiences relevant to the objectives should be of relatively high frequency in commercial television programs which preschool children often watch.

4. Children's ability in these objectives should be measurable with appropriate test materials.

As a reflection of Piaget's developmental perspective, we were particularly interested in focusing on those aspects of conceptual, social, and linguistic development that may be only passively available in television experiences but which might be activated by parent-and-child interaction. For example, in Piagetian theory, the development of the temporal concept is an important component of the child's concept of reality. Examples of time sequences abound in television fare. Yet television often compresses or resequences events. To what degree will a child's temporal concepts be affected by passive viewing of television presentations as compared with a situation where parent and child are interacting on the content of the television experience? In order to answer this question, the decision was made to use time as one of the learning objectives. As our discussions continued, we concluded that the other appropriate learning objectives should be directed toward spatial, classificatory, and social aspects of development.

The selection of these objectives was predicated on the assumption that the child who spontaneously uses a word in a

meaningful way has some understanding of the temporal, spatial, classification, or social concept which underlies his linguistic response. If this assumption is accepted, words denoting these concepts can be selected, incorporated into the linguistic repertoire of the parent, and used as measures of testing children's concept attainment.

A further major question has been: "Is it possible to determine from Piaget's theory discrete levels of attainment?" The nature of our reasoning as we attempted to answer this question is reviewed for each concept in the following paragraphs.

1. Temporal concept. Underlying the child's ability to represent his experiences and ideas in verbal or other symbolic forms is his understanding of the concept of time. His world is organized into temporal dimensions: day and night; before and after; yesterday and tomorrow. Understanding the language of time "presupposes or engenders representations" (Piaget, 1954, 345) of temporal relationships which order the child's environment. It calls for the mental abilities of evoking and reconstructing images of the past (recall), of planning and deducing future events (anticipation), and of living in the reality of the here and now. For Piaget, these abilities develop gradually through a sequence of stages. The young child moves from the notion of time bound to the present towards the elaboration

of temporal representations of reality which release thought to go beyond the present to the past and the future. The acquisition of temporal relationships requires multiple instances of ordering and reordering of objects and events with which he first has had direct contact in an environment conducive to the evocation of language.

2. Spatial concept. In Piaget's theory, the concepts of space and time are interconnected. He argues that time "presupposes space, for time is nothing other than the forming of relationships between the events which fill it and those which require for their formation the concept of object and spatial organization" (1954, 320). As in the earlier discussion of the temporal concept, the formulation of spatial relationships develops slowly over time and through sequential stages (Piaget, 1967). Its origins are found in the sensori-motor stage. By age two, however, the child begins to reconstruct in thought representational relationships which the image symbolizes.

The most rudimentary relationship to emerge has to do with proximity and separation. In representing his experiences proximity, or nearbyness, is the first of the elements belonging to the same perceptual field to emerge. As he gradually

differentiates degrees of proximity, he learns how to separate objects appropriately in space. Contemporaneously the relationship of order and enclosure takes its place in the child's spatial reconstructions. Near but separate elements are ranged one before another in spatial succession. In the ordered series the child perceives one of the elements as enclosed by the others. We may illustrate the child's use of these relationships in his drawing of a human figure. For instance, he may place the eyes in close proximity yet separate from one another, enclose the eyes by the head and then without hesitation, draw the legs as extensions of the head. It is evident that his ability to conceptualize space lags far behind his ability to perceive objects in space.

Again, the child's understanding of the language of space stems from the variety of his encounters in appropriate linguistic environments. Through his own actions and those of others he learns to differentiate near (proximity), far (separation), before-after (order in time), between (enclosure), and similar expressions denoting spatial relationships.

3. Classificatory concept. Inhelder's and Piaget's (1969) discussion of classificatory behaviors centers on the development of the necessary mental operations by

successive stages. The child's earliest attempts are simply sorting objects that resemble one another. His efforts of "putting things together that go together" enable him to recognize not only similarities but also a set of differences which are distinguishable from other sets. His classifications remain for some time merely collections of things grouped on the basis of perceptual characteristics rather than actual classes. Because his thought is limited to the perceptual field, his groupings are static images showing no relations one to the other. The cognitive problem facing the child is one of differentiating "all" and "some." For instance, he may agree as readily to the statement, "all boys are children" as to the statement "all children are boys." For Piaget, the child does not resolve this discrepancy linguistically until he resolves it cognitively. To eventuate the solution requires multiple sensory experiences where he may group and regroup an array of materials. Incorporating such expressions as all, some, belong, look alike, and different into the child's natural linguistic environment facilitates the acquisition of the relationships among classes.

4. Social concept. Piaget's (1955) work on the stages of children's social development points to its

interrelatedness with cognitive and linguistic development. He views the young child as egocentric, whose world revolves around him and whose language is largely monologistic and repetitive, thus reflecting his egocentrism. Social development, then, becomes one of moving from one's own action and thought towards collaboration first, in action and non-abstract thought and secondly, in abstract thought. This development is easily traced in the child's play. At three he engages more in solitary play using language for his own purposes. By four he begins to enjoy collaborating in his play and his language reflects the need and the desire to communicate with others. After four the social roles are differentiated and become complementary. Efforts to communicate imply resolution of arguments by using language and collaboration of ideas not necessarily tied to the immediate perceptual field. Expressions which illustrate social development are: "my turn, your turn, let's do it together, these are here and these are there."

This social decentering or distancing is crucial to the development of representational thought. Sigel (in press) argues:

> Variation in performance of representational transformations are predicated on the assumption that social contexts play a dominant role in

influencing the quality of representational thought along with the capability of comprehending representational media.

We are in accord with Sigel. Our selection of learning objectives which are easily related to commercial television content is indicative of our commitment to this point of view.

Parent and child interaction kits. During the last months of this phase of the project, considerable pilot work has been done in selecting likely parent-child interaction materials which would achieve specific objectives within the categories discussed in the previous section. The results of this pilot work have confirmed our choice of the four categories of learning objectives and have also led us to the conclusion that it was feasible to develop parent-child interaction kits which would guide the interaction along the lines of the learning objectives.

We propose now to place in each kit materials which support the Piagetian view of child development. Criteria for the selection of the content are:

1. Use toys which invite the child to interact dynamically, e.g., dolls which will bend and can be dressed.

2. Select toys which represent the real world and are frequently used on television and in the child's home environment, such as cars, trucks, wearing apparel.

3. Compile materials which range from concrete (miniature cars) to abstract representations (outline drawings of real objects); and form simple (dolls) to complex (games with rules).

5. Use materials which, by their very nature, suggest the functional use of words denoting space (in-out),

time (before-after), classification (same, looks alike, different), and socialization (let's do it together, your turn).

Television content. At this point, it has become necessary to examine closely the likely television content for the project. Accordingly, we intend now to analyze in detail the content of television shows which are frequently watched by preschool children and to select from that content likely procedures which not only will capitalize on the content but also can be used by the parent in the interaction sequence.

Interaction procedure. For the past three months, the Project on Television in Early Education has conducted an extensive search of the literature related to parent-child interaction (Smart and Minet, 1976). Underlying all of the research studies are the psychological and sociological advantages of intervention in parental teaching styles as a viable means of effecting children's development. Of possibly more importance are the favorable consequences of attitudinal changes in parents' views of themselves as teachers. Benefits accrued to all family members, particularly the younger children.

This information has led us to conclude that the procedures we plan for the parents' use of the kits with their children is crucial to the success of the project. Consequently our plan now is to develop sufficient kits for use over a period of 18 weeks designed for a mother-child dyad. The interaction of the parents and children will involve the use of a planned series of questions and dialogues involving experience with temporal, spatial,

classificatory, and social relationships of the action just viewed on the television show. During the interaction sequence, the children will dress up the puppet to represent one of the TV characters, role play a recalled segment of the show, or some other logical extension of the program.

Training procedures for the parents will include:

1. The use of models for the parents to imitate the appropriate linguistic behaviors.

2. Daily practice sessions of sufficient time for the mothers to: 1) incorporate within their linguistic repertoire the use of specific words denoting spatial, temporal, social, and classificatory concepts; and 2) to feel confident in their ability to use the kits.

3. The use of videotapes for instant feedback to the parent of her teaching styles.

We plan to assess frequently the content of the kits and the training procedures so that appropriate modifications in both can be made.

Research reviews. Two main literature reviews were prepared during this period and are now available in document form.

Margaret Smart and Selma Minet, "Parent-Child interaction: Research and its practical implications" Los Angeles: Joint Project on Television in Early Education, University of Southern California, 1976.

Robert Epstein, "The linguistic gains of children from television" Los Angeles: Joint Project on Television in Early Education, University of Southern California, 1976.

January - June, 1976: Planned Activities

Survey of preschool children's television viewing. We plan to do field work in several Los Angeles communities to determine in detail preschool children's viewing habits. Programs

frequently viewed will be analyzed for content susceptible to use in the interaction kits.

Development of prototype kits. Work will continue in selecting and pilot testing interaction kit materials and strategies for using them, the goal being the development of nine separate kits, each potentially usable for two viewings of the same program.

Development of an evaluation strategy. Should our pilot work continue to be successful, we intend to develop a formal test battery to assess gains on the learning objectives. A minimum goal is to gauge a small pilot group of families on a "before-after" test basis in employing the interaction materials. A maximum goal is to develop a suitable control group (parent-and-child interaction similar in all respects to our experimental group except that the materials are purposely unrelated to television experiences) and employ this group in a pilot experiment.

July 1976 - June 1977: Anticipated Activities

If the project continues on a successful course and if support funds can be maintained, a full-scale field evaluation will be planned for the completed kits to be tested with families during the fall television season. By use of experimental, parent-child-television-interaction kits (PCTI), and control groups, parent-child-interaction (PCI, nonrelated to television), we will be able to determine our success in creating cognitive and linguistic gains from commercial television viewing experiences.

III

A RATIONALE FOR USING PARENT-AND-CHILD INTERACTION IN CONJUNCTION WITH COMMERCIAL TELEVISION VIEWING TO PROMOTE COGNITIVE AND LINGUISTIC DEVELOPMENT IN PRESCHOOL CHILDREN

Frederick Williams and Margaret Smart

(October, 1975)

The television problem

Research indicates that "total TV viewing per home per day" in the United States is now reaching between six and seven hours, and that in some low income homes the set may be on up to 10 hours per day (Broadcasting Yearbook, 1974: Liebert, Neale and Davidson, 1973). Television is an intrinsic part of the home environment of the preschool child, who is now estimated to view between two and three hours a day (Lyle and Hoffman, 1971), and who may be within earshot all day in a smaller home. Further, our estimates are that somewhat over three-fourths of an average child's viewing time is with commercial programming.

Our own data gathered from families of children in the University of Southern California School for Early Childhood Education tend to corroborate the above generalizations, but with the addition that in low income, minority group families there is even greater proportionate viewing time spent with commercial television, including that prepared for prime-time entertainment. There is substantial expression of parental concern over the effects of such viewing, but also there is recognition of the little chance that amounts of viewing or selection can be changed.

What are the consequences of spending great amounts of time watching television? Perhaps the most frequent concern expressed in our contemporary society is that children will be adversely affected by the frequent depiction of violence in programming

ranging from action shows to cartoons. This, as is well known, was the focus of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior. The Committee report (Comstock, et. al., 1972) was cautious in its generalizations, but it did indicate that there were unnecessary amounts of violence on television and there seemed to be evidence that for some children this could have undesirable consequences. Some three years hence, however, it can be noted that little has changed as the result of the report (Cater and Strickland, 1975).

Currently, the work by Gerbner and his associates has provided continuing evidence of the high level of violence in popular television fare. Possibly more intriguing, however, are the initial studies by Gerbner and Gross (1974) of a television "cultivation" phenomenon whereby individuals' perceptions of reality are thought to be more biased toward television portrayals rather than reality itself--as, for example, in perception of amounts of violence in society, occupational stereotypes, and the like.

The foregoing raises an issue that has been of major concern in our consideration of television in early childhood. If a very young child experiences most of the world in a television-mediated form, what consequences will this have on his development? Perhaps the most comprehensive negative position on this has been expressed by Cohen (1974) who cites evidence of disorienting effects ranging from confusion over reality vs. fantasy, to interference with classroom learning. Among the problems of television as experience, Cohen argues, is that it prompts a passive observation of an image

(and often a distorted one) of reality at a time when the young child needs a sensory contact with reality itself.

In our own thinking (as well as Cohen's) this problem reflects especially on a Piagetian view of child development where active social and environmental interaction is critical to the developmental process. It also raises the point that in Piagetian theory knowledge is gained through experiences which stimulate involvement not only at a given moment, but also over time allowing the child to integrate his experiences into an overall schema. This is the crux of our rationale for attempting to capitalize on a child's television experiences--that is, to relate media experience through a program of parent-child interaction to real world, sensory and interactive experiences.

Responding to the problem

There are, of course, popularly known attempts to deal with the television problem. One has been to pressure commercial broadcasters into improving the quality of their programs. Another has been to support alternative types of programming, particularly as found on the Public Broadcasting Service. Finally, there is the current "family viewing" period agreed to by the National Association of Broadcasters. Although we agree with all of the above approaches, we feel that it is equally important for children to learn how to use television. Since it does not appear that commercial programs will change significantly nor that the child will be watching fewer hours of television, why not try to increase the chances

of the child gaining something constructive out of the time spent with the medium?

Can a program of parent-and-child interactions incorporating television experiences yield some potentially positive results from the time that a child is already spending with commercial television? For several reasons, we think yes, but this position requires a careful set of qualifications.

A developmental perspective

Perhaps the most basic issue is the position taken on the processes of child development. Given a position, then there is a basis for interpreting the likely effects of television and the potential manipulation of these effects. Our own School operates on a "Model for the Development of Competency in Young Children," based upon Jean Piaget's theory of intellectual development (Smart, 1973). In summary form, the basic assumptions are:

* Children learn through their actions upon their physical and social environment and, therefore, all learning must be action oriented.

* Intellectual and emotional development of children are as uneven as the more easily viewed physical development.

* Children are in the preoperational stage of development and exhibit the following cognitive characteristics:

    a. They are egocentric and unable to take the point of view of others.

    b. Their language is tied to their actions.

    c. Language mirrors their thoughts; therefore, much of the language is a monologue and repetitious.

* Imitative behavior reflects accommodative behavior.

* Play is vital to the internalization of experiences and thus is viewed by Piaget as the assimilative aspect of the equilibration process.

* The foundation of representational thought is laid during the first eight years of children's lives. Language, mental imagery, drawings, play, and imitation are the interrelated components to the development of symbolic representation.

* Children are just beginning to acquire spatial, temporal, social, and causal concepts.

Piaget's theory raises interpretive questions with respect to developing programs for children. Acknowledging the need to analyze and evaluate our interpretation, the USC Model adheres to the following tenets:

* Curriculum is defined as all of the experiences encountered by the children at school.

* Instruction is defined as the interactive process between children and adults.

* The learning environment includes all materials, people, and equipment which influences children's learning within the school setting.

* The learning environment is organized for children to select the experiences which have personal meaning and are self-satisfying.

The materials placed in the environmental setting are selected on the following criteria:

* They may be used by children in multiple ways and for their own purposes.

* They stimulate interest and create uses.

* They require active rather than passive participation.

* They invite children to touch, taste, smell, listen, and look.

* Children are the generators of their own products. From what they do (the real experience) they develop reciprocal associations between the experiences and representations of the real.

They construct representations through the use of paint, clay, wood, and other craft materials; they represent their experiences through play, dance, body movement, and music.

* The acquisition of language is personalized and meaningful to each child. He associates what he does with what he says. He discovers that what he says can be written and read back to him by adults in the school.

* The teacher's role is atypical. The adult becomes: a model for children to imitate; a facilitator of children's linguistic and learning efforts; and an organizer of an environment which provides variation, problem solving, and curiosity; a listener and observer of children.

What do the above assumptions suggest relative to the role of television on young children? Some of the generalizations which seem most evident are as follows:

1. Since most experience with television is passive, it seems necessary to create conditions in the home which will promote action oriented learning. This could be done by actively engaging the child with selected objects, events, and dialogues which are also experienced on television. We are referring to very basic items, such as everyday items of clothing, automobiles, different types of people, animals, and the like. Action orientation could involve manipulation of items so as to characterize spatial, temporal, social, and causality concepts.

2. Since the television medium is itself inherently representational, prompting the child to compare his or her representations with reality, and even to act upon the items in reality should not only promote the child's development of representational thought but could develop sensitivity to the biases of the television medium.

3. Language is, of course, a prominent part of the television experience, but is also the basis for comparison with other representations as well as the medium of adult-child interaction. Since television offers such a wide variety of linguistic experiences, there is considerable opportunity for accommodating the personalized interests of children. Adult-child interaction could focus not only upon examples of language per se but upon the functions of language as found in different modes of speech, such as description, conversation, or explanations, to name a few. A child could act linguistically upon concepts reflecting causal, temporal, and social relationships.

4. The phenomena of personal meaning, self-satisfaction, and even play are to various degrees a part of television experiences, particularly television which is meant to be entertaining. Adult-child interactions which promote the foregoing are apt to be particularly successful in getting the child to act upon items and events, or social situations, which can be compared between televised and real-world representations.

5. Finally, the adult or parent, as "a facilitator of children's linguistic and learning efforts" or "organizer of an environment which provides variation" can easily perform a teacher role which capitalizes upon a child's experiences with television.

In all, we recognize that television is already a part of the child's "curriculum." We seek to incorporate experiences with it in the sense of "instruction," as defined above, and thus improve a child's "learning environment."

Learning from television

There is abundant evidence that television can be an effective teacher relative to instructional objectives ranging from symbolic representation to cultural attitudes. Most such evidence, however, comes from the formal evaluation of educational programs--as, for example, Sesame Street (Lesser, 1974) or Carrascolendas (Williams and Van Wart, 1974). We know much less about learning from commercial television, where emphasis has been upon problems of reaction to violence. There is evidence, although not comprehensive at all, of some language gains due to exposure to commercial television (Schramm, Lyle, and Parker, 1961; Atkin, Murray, and Nayman, 1971).

Parent and child interaction

There already exists a substantial body of contemporary research into parent-child interaction such as found, for example, in Levenstein's Verbal Interaction Project (1971), or current evaluations of Home Start (Deloria) or Parent-Child Centers (Holmes). Given that these demonstrations have indicated methods by which parents can interact with their children so as to increase development along certain lines (including language), it seems reasonable to assert that the content of commercial television could be capitalized on in early childhood education.

A notable and successful example of an attempt to use interaction techniques to increase television effects was the "Sesame Mother" project where volunteer mothers were trained to direct activities that would reinforce specific aspects of the program and relate

it to real world experiences (Filep, et. al., 1971). This project was successful, and an interesting sidelight was its positive effect upon parents' attitudes about their children's learning skills. Sesame Street toys and publications are further examples of attempts to reinforce viewing experiences.

In a broad sense, the present project could be characterized as a commercial television version of the above project, except that parental interaction would be used to create a psychological set for certain instructional objectives to be sought from childrens' viewing experiences, in addition to providing a reinforcement follow up. Put more practically, parent-child interaction would be focused upon specific knowledge or skill items which we have good reason to believe will abound in typical commercial television fare.

Special considerations of language

Since language assumes a key role in the different facets of this project, we have given particular consideration to several theoretical positions.

One main question is: What are those aspects of language which are developing in three-to six-year olds, which are pervasive in commercial programming, which lend themselves well to the content of parent-child interaction, and which may be particularly relevant to the developmental process?

The impact of television relative to the family interaction environment may be at a high point with the preschool child--that is, when the child is yet uninfluenced by school and a broad variety

of peer relationships. And it is at this age that effects of television and parent interaction may be most additive as a joint influence on child language development. Language seems in many ways the key variable. It is a vehicle for development; it is the medium of parent-to-child transmission of concepts, attitudes, and social strategies. On methodological grounds, language is a desirable variable for such reasons as: (1) Facets of language relevant to the development of the preschool child can be identified precisely (words and phrases denoting temporal, spatial, and logic-mathematical concepts) in television content. (2) Language can be manipulated readily in parent-child interaction strategies. (3) Developmental facets of language can be reasonably measured in children's behavior. (4) We have norms available to facilitate interpretation of measures.

We are chiefly concerned with those aspects of a preschool child's language which prior research and theory hold as most relevant to the developmental process. The research literature is abundant on this topic, not to overlook the bulk of Piaget's early work which explores the purposes for which children use language.

Some of the best known examples of family language styles are Hess and Shipman's (1965) concept of "maternal language style" and Bernstein's (1970; 1971; 1973) "restricted and elaborated codes." Similarly there are a number of preschool models highly focused upon language styles or strategies, as, for example, Weikart and Wiegerink's (1968) "verbal bombardment," Blank and Solomon's (1968) "tutorial" program, and in demonstration projects reported by Boger, et. al., (1969), Weikart, et. al. (1970), and Levenstein (1971).

Recently, Cazden (1974) has raised the issue of young children's "metalinguistic awareness"--that is, the degree to which there is a conscious consideration of language at the time of its usage. She makes the point that such awareness may play a key role in the functional aspects of language development, especially when play with language is an end in itself and might be encouraged in educational practices. This line of reasoning, we believe, offers a variety of implications for parent-child interaction activities which could relate to experience with the language of television.

We are also interested in interaction strategies where the parent-child conversation styles impart in the child's own language particular social and cognitive orientations. Admittedly, definitions of these styles are abstruse, but there is a broad pattern of findings which distinguish between language styles which tend to portray and reinforce concrete and particular expressions of experience with implicit meanings, as against styles which offer variety in perspective, levels of abstraction, and explicit meanings. One of the best known examples of this stylistic differentiation is in Hess and Shipman's description of differences in mother-child interaction when creating a picture on an "etch-a-sketch" toy. Some mothers largely directed their child's efforts by imperative commands. Other mothers explained to the child what they were about to try to draw together, and suggested and described, rather than simply ordered the child's efforts.

White and Watts (1973) discuss the particular maternal styles which incorporate language denoting causality and tentativeness (you might fall!) that correlate highly with other cognitive abilities developing in children by age three. This again illustrates the importance of the child experiencing strategies of language. Thus, we are interested in the content of television language as it illustrates such strategies.

The foregoing type of distinction has been found in numerous studies, including an assessment of social class differences in how children described television programs (Williams, 1969). Using language samples from the Detroit Dialect Study where social class differences in grammatical and stylistic variables tended to be greatest when children discussed television (Williams and Naremore, 1969a,b). A "content" assessment was undertaken to see if there were differences in the programs or aspects of the programs discussed. Findings indicated that although the children tended to watch the same programs, their descriptive differences were mainly in a distinction between simply reporting in a concrete manner certain action sequences (drawing heavily from visual input) as against explaining the plot. These findings were the bases for the implication that what a child perceived on television was mediated by his own language styles.

Chaffee, McLeod and Atkin (1971), mass media rather than language researchers, have posed a theory about different family communication styles, which is compatible with the distinctions just discussed. They differentiate families by the two dimensions

of "socio-orientation" (degree to which harmonious relations are sought, avoidance of interpersonal controversy) and "concept-orientation" (seeks new and varied information, idea controversy, as against the avoidance of the new or controversial). Within these combined orientations, the authors note families which appear to use television mainly for entertainment purposes as compared with those who seek out information from the medium. They have found correlations of these distinctions with other media uses (books, magazines), and speculate on verbal interaction patterns. In such speculation, they take the position that it is "what communication is used for" rather than "the content" which weighs heavily in the socialization process, and the distinctions are a combination of verbal and media behaviors.

Project Goal

This is the crux of our rationale for this proposal. Television portrayals contain a wide variety of human experience and linguistic dialogue. We would like to define a model, and in our project, propose parent-child interaction procedures that would relate media experience of the child to real world, sensory, and interactive experiences, particularly those pertinent to cognitive growth and linguistic socialization. So as not to confound the results with effects of educational television, the television materials will be based upon commercial programming viewed by the children.

In summary, we envision project steps as the following:

1. Identify from a Piagetian perspective, critical cognitive and linguistic developmental objectives in preschool children.

2. From these objectives, select those which should benefit from the combination of commercial television viewing and parent and child interaction.

3. Develop and pilot test prototype intervention kits relative to learning objectives.

4. If the foregoing is reasonably successful, develop a major field study with suitable experimental (television-related parent and child intervention) and control (intervention not related to television) groups so as to test the hypothesis that interventions incorporating viewing experiences contribute to cognitive, social and linguistic gains.

IV. Facilities and Personnel

Research Facilities

The University of Southern California School for Early Childhood Education (SECE) is a nationally recognized demonstration preschool, serving adults and children from the University and neighborhood communities. Dedicated in October, 1973, the $350,000 school houses six classrooms, an office complex including research facilities, and support service areas for the student, teacher and researcher.

SECE has facilities to accommodate 100 children along with adequate office space for facilitating the research activities needed for this project.

The school is structurally designed to facilitate observation of the children, as well as to provide a spacious, well-lighted environment for growing children. Also, the SECE facility has the capacity for remote television observation in two of its six classrooms (if needed for training parents).

The Annenberg School of Communications at the University of Southern California was established in 1973 under an eight million dollar contract with a Pennsylvania nonprofit educational corporation (of the same name) of which Walter H. Annenberg, former U.S. Ambassador to Great Britain, is president. The Annenberg School at USC specializes in seeking solutions to contemporary and futures problems of human communications, particularly as they involve the social impact of modern communications technologies. The School operates a research branch, the Center for Communications Policy

Research, whose mission is to integrate contemporary research knowledge about communication into national, state, and local planning. The research administration of the Annenberg School's role in the project will be carried out by this unit. Further, the policy implications of the present study will be interpreted by personnel in this unit as one of the School's contributions to the project. The School has interactive computing services on a PDP-10, which it jointly operates with the School of Engineering. Staff personnel for ongoing research and statistical services are available for use in the current project. The School operates a media Production Center which will participate in the development of PCI materials as well as project documentation.

Project Co-directors

Dr. Frederick Williams is Professor of Communication and Dean of the Annenberg School of Communications at USC. His doctorate was obtained in an interdisciplinary program at USC (1962) combining study of language and communication. He served on the faculties of the University of Wisconsin (1962-69) and the University of Texas (1969-73). While at the University of Wisconsin he served as co-principal investigator on a National Science Foundation psycholinguistics project with Dr. Percy H. Tannenbaum (1963-67), then on the Senior Research Staff of the Institute for Research on Poverty (1967-69), where he completed Language and Poverty (Markham, 1970) under support from the Office of Economic Opportunity. At the University of Texas he was principal investigator of a USOE supported

research project in linguistic attitudes (1970-72) and two Teacher Corps grants to develop assessment techniques for evaluating the bilingual language development of Mexican-American children (1971-72). From 1970-73, he served as the Director of Research on a Title VII project in the development of a bilingual television program; this led to publication, with G. Van Wart, of Carrascolendas: Bilingual Education Through Television (Praeger, 1974). In the summer of 1973 he assumed his present duties as Dean of the new Annenberg School of Communications at USC. He is the author or coauthor of some 65 journal publications in language and communications, of Language and Speech (Prentice-Hall, 1973), the forthcoming Sounds of Children (Prentice-Hall, in press), and editor and contributor with Fred D. Minifie and Thomas Hixon of Normal Aspects of Speech, Hearing and Language (Prentice-Hall, 1974).

Dr. Margaret E. Smart, Associate Professor of Education and Director, School for Early Childhood Education at the University of Southern California. Her doctorate was obtained at the University of Arizona (1969) while serving on the staff of the Early Childhood Research and Development Center (1967-68), supported by the HEW National Laboratory of Early Childhood Education. She assisted in the development of the Tucson Model, widely used by Follow Through Projects. Her dissertation studied the relation between home environmental influences and intellectual development of Mexican-American six-year-olds of differing social class. She directed the USC Institute of Early Childhood Education, an N.D.E.A. grant (1968-69). Upon its termination she was appointed to the faculty for the purpose

of developing credential and graduate early childhood programs in the School of Education and to direct the School for Early Childhood Education, the campus laboratory school. Under her direction a program based upon Piaget's theory of intelligence was developed for the preschool children. The past three years longitudinal research has been conducted in the areas of family environmental influences and language development. Interim reports have been presented at conferences (Smart, Theimer and Dahl, 1974; Smart, Dahl and Wetzstein, 1975).

Since 1965 she has served as consultant to Head Start programs in Texas, Arizona, and California; Titles I and III Projects; California State Department of Education and county school offices.

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